

REMARKS

Claims 1-34 remain pending in this application. Claims 1, 4, 17 and 32 were amended in this response. No new matter has been introduced as a result of the amendments.

Claims 15, 16 and 34 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. In light of the above amendments, Applicant submits that the claims comply with the requirements of 35 U.S.C. §112 and that the rejections be withdrawn.

Claims 1, 17, 21, 22, 31, 32 and 33 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Makikallio et al.* (US Patent 5,697,074) in view of *Wang* (US Patent 5,606,285).

Claims 2, 7 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Makikallio et al.* (US Patent 5,697,074) in view of *Wang* (US Patent 5,606,285), and further in view of *Liimatainen* (US Patent 6,370,364).

Claims 2, 7 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Makikallio et al.* (US Patent 5,697,074) in view of *Wang* (US Patent 5,606,285), and further in view of *Liimatainen* (US Patent 6,370,364) and further in view of *Timmons* (US Patent 5,381,115). Claims 8-13 and 24-29 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant respectfully traverses the above rejections. Favorable reconsideration is respectfully requested.

Specifically, none of the cited art, alone or in combination, recite, among other things, the features of (1) keeping the control loop closed for a controlled up-ramping within the transmission burst; (2) opening the control loop and keeping the amplifier control signal constant during the period of the data transmission within the transmission burst; and (3) after completion of the data transmission, closing the control loop for controlled down-ramping within said transmission burst. These features are all recited in independent claims 1, 17 and 32.

Regarding *Makikallio*, the reference only suggests, in a very general manner, to use a fast/slow low pass filter (LPF) 44 with the control signal (col. 2, line 55 to col. 3, line 18; FIG. 2). The " ... LPF 44 exhibits fast and slow filter modes in accordance with the rate control potential applied by the controller 40. When controller 40 determines that either a ramp up or

ramp down period is to occur, a first rate control signal is applied to filter 44 to cause its time constant to decrease so as to enable a faster filter response action (col. 3, lines 10-18). In contrast to the present claims, after the ramp up or ramp down period has passed in *Makikallio*, controller 40 applies a second rate control signal to filter 44 which increases the time constant of filter 44. The result is that filter 44 responds more slowly to voltage changes appearing on LPF input line 38 and thus alters the output potential on line 46 in a slower manner. Consequently, the gain of VCA 22 is changed slowly during the slow mode so as not to affect the modulation of the RF signal. Thus *Makikallio* teaches to use always a closed control loop both during up- and down-ramping and even during the period of data transmission within the transmission burst. Therefore this reference teaches away from the features of the presently claimed invention.

The disclosure in *Wang* prevents a RF power amplifier from saturating (col. 2, lines 21-30). To this end, a switch 9 (FIG. 2) is turned on for activating a saturation preventing control loop 20 (col. 6 lines 14-24), in the case that the output power of the RF power amplifier 3 increases over a predetermined maximum transmission power. When the transmission power is lower than the maximum transmission power, the switch 9 is turned off thus disconnecting the saturation preventing control loop 20 (col. 5, lines 40-65). Accordingly, *Wang* also fails to teach the features recited above.

Liimatainen also teaches away from the claims, as the reference discloses additional steps of "commanding, measuring and comparing ... between transmitted bursts of RF power" for calibrating or aligning the RF power control loop (see col. 4, lines 54-57; col. 3, lines 34-36). After the initial power-on in *Liimatainen*, the alignment long term drift is tracked by testing the error amplifier output (EAO) from time to time; the EAO comparisons are made between or just prior to transmit bursts and the power controlling device (e.g., the RF amplifier 30) is disabled using the switch (SVV) to avoid a possibility of causing an unintended transmission which could interfere with the transmission from another user (col. 9, lines 13-22). This clearly teaches to open the switch only between transmission bursts, but not to open the control loop during the period of data transmission within a respective transmission burst. Thus *Liimatainen* does not provide any teaching or suggestion to use the above-referenced features in the amended claims.

Likewise, *Timmons*, does not cure the deficiencies of the aforementioned references, as *Timmons* teaches to "intentionally shut down the amplifier for a very short period of time in order to reveal the detector diode's thermally induced error voltage" (see column 2, lines 32 to

34) *Timmons* further teaches to shut down the amplifier "when there is detected an absence of data modulation..." (see column 4, lines 24 to 32). Furthermore, *Chorey* is completely silent with respect to the specific teaching of the amended claims.

In light of the above, Applicant respectfully submits that claims 1-34 of the present application are both novel and non-obvious over the art of record. Accordingly, Applicant respectfully requests that the rejections under 35 U.S.C. §112 and §103 be withdrawn and a timely Notice of Allowance be issued in this case. If any fees are due in connection with this application as a whole, the Examiner is authorized to deduct such fees from deposit account no. 02-1818. If such a deduction is made, please indicate the attorney docket number (115426-527) on the account statement.

BELL, BOYD & LLOYD LLC

BY 
Peter Zura
Reg. No. 48,196
P.O. Box 1135
Chicago, Illinois 60690-1135
Phone: (312) 807-4208

Dated: November 10, 2004